



PAEDIATRIC DERMATOLOGY

PERFORATING GRANULOMA ANNULARE FOLLOWING BACILLUS CALMETTE-GUERIN VACCINATION

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Granuloma annulare (GA) is a benign, self-limited, inflammatory dermatosis of unknown origin, histologically characterized by degeneration of connective tissue and a surrounding predominantly histiocytic infiltrate. Characteristic clinical features are skin coloured to violaceous papules and annular plaques. The most common is localised variant with predilection for feet, ankles and wrists. Generalised, subcutaneous and perforating GA (PGA) are rare forms, occasionally associated with triggering factors like trauma, insect bites, diabetes, and bacillus Calmette-Guerin (BCG) immunisation (1,2,3,4). BCG, a form of bovine tubercle bacillus with reduced virulence, is being used as a vaccine against tuberculosis.

A 3-month-old girl presented with two months history of generalized rash that first appeared on torso, further spreading to head and neck. Numerous, slightly erythematous to skin coloured papules with umbilicated and discretely crusted surface were seen (Fig. 1). Two weeks after the rash appeared patient suffered from diarrhoea with Rota virus being isolated from stool. She was also referred to gastroenterologists for low weight gain and suspected cow's milk allergy that was not confirmed by in vitro tests. Patient was a term baby born from uncomplicated pregnancy. BCG vaccine was administered in the first week of life. Due to extensive nature of rash, urgent skin biopsy was performed and histopathology results confirmed PGA (Fig.2). Blood test results, including FBC, LFTs, lactate dehydrogenase, rheumatoid factor, immunoglobulins and blood glucose were unremarkable.

PGA is a very rare form of GA with unknown aetiology and a chronic course. Due to its rarity the diagnosis is often difficult and challenging and clinical features facilitate skin biopsy to avoid unnecessary procedures and invasive treatment, particularly in infants due to the self limiting course of the disease. Although generalized GA following BCG immunisation has been described in literature (2), there are no published reports on PGA in neonates following BCG vaccination.

